

Claims

What is claimed is:

1. A method comprising:

determining whether to inform one or more users of an interactive television service of available content from an Internet web site; responsive to determining to inform the one or more users of the available content from an Internet web site, generating a hot key signal indicating availability and a location of the alternate content; and inserting the hot key signal into a content signal transmitted to the one or more users from an interactive television service provider via a network with which the one or more users and the interactive television service provider are connected.

2. The method of claim 1, wherein determining whether to inform one or more users of an interactive television service of available content from an Internet web site is based on information supplied by a content provider.
3. The method of claim 1, wherein determining whether to inform one or more users of an interactive television service of available content from an Internet web site is based on information generated by the interactive television service provider.

4. The method of claim 1, wherein the hot key signal comprises an Internet Protocol (IP) data packet, the IP data packet having a header portion and a body portion, the body portion having a data field indicating a Uniform Resource Locator (URL) where the alternate content is located.
5. The method of claim 1, wherein the available content from an Internet web site is related to content currently being viewed by the one or more users.
6. The method of claim 1, wherein the network comprises a cable network.
7. The method of claim 1, wherein the network comprises a satellite network.
8. The method of claim 1, wherein the network comprises a Fiber-To-The-Curb (FTTC) network.
9. The method of claim 1, wherein the network comprises a Fiber-To-The-Home (FTTH) network.
10. The method of claim 1, wherein the network comprises a Very high speed Digital Subscriber Line (VDSL) network.
11. A method comprising:

determining whether to supply alternate content to one or more users of an interactive television service, the alternate content to be cached on a terminal device located at a premises of the one or more users; responsive to determining to supply alternate content to one or more users to an interactive television service, sending the alternate content to the terminal device located at the premises of the one or more users; generating a hot key signal indicating availability of the alternate content; and inserting the hot key signal into a content signal transmitted to the one or more users from an interactive television service provider via a network with which the one or more users and the interactive television service provider are connected.

12. The method of claim 11, wherein determining whether to supply alternate content to one or more users of an interactive television service is based on information supplied by a content provider.
13. The method of claim 11, wherein determining whether to supply alternate content to one or more users of an interactive television service is based on information generated by the interactive television service provider.
14. The method of claim 11, wherein the hot key signal comprises an Internet Protocol (IP) data packet, the IP data packet having a header portion and a body

portion, the body portion having a data field indicating a Uniform Resource Locator (URL) where the alternate content is located.

15. The method of claim 11, wherein the alternate content is related to content currently being viewed by the one or more users.
16. The method of claim 11, wherein the network comprises a cable network.
17. The method of claim 11, wherein the network comprises a satellite network.
18. The method of claim 11, wherein the network comprises a Fiber-To-The-Curb (FTTC) network.
19. The method of claim 11, wherein the network comprises a Fiber-To-The-Home (FTTH) network.
20. The method of claim 11, wherein the network comprises a Very high speed Digital Subscriber Line (VDSL) network.
21. A method comprising:
receiving a hot key signal indicating availability and a location of available content from an Internet web site;

determining whether the hot key signal is relevant to a user currently viewing content from an interactive television (TV) provider; responsive to determining the hot key signal is relevant to the user, displaying on a screen an indication that the hot key signal has been received; and responsive to receiving an indication that the hot key is accepted, starting a web browser and rendering the available content from an Internet web site indicated by the hot key signal.

22. The method of claim 21, wherein the hot key signal comprises an Internet Protocol (IP) data packet, the IP data packet having a header portion and a body portion, the body portion having a data field indicating a Uniform Resource Locator (URL) where the available content is located.
23. The method of claim 21, wherein determining whether the hot key signal is relevant to the user comprises determining whether a destination address for the hot key signal is an address of the user.
24. The method of claim 23, wherein determining whether the hot key signal is relevant to the user further comprises determining whether the available content from an Internet web site is related to content currently being viewed by the user.
25. A method comprising:

caching alternate content on a terminal device of a user currently viewing content from an interactive television (TV) provider;

receiving a hot key signal indicating availability of alternate content cached on the user's terminal device;

determining whether the hot key signal is relevant to the user;

responsive to determining the hot key signal is relevant to the user, displaying on a screen an indication that the hot key signal has been received; and

responsive to receiving an indication that the hot key is accepted, retrieving and presenting the cached content to the user.

26. The method of claim 25, wherein the hot key signal comprises an Internet Protocol (IP) data packet, the IP data packet having a header portion and a body portion, the body portion having a data field indicating the availability of cached content.
27. The method of claim 25, wherein determining whether the hot key signal is relevant to the user comprises determining whether a destination address for the hot key signal is an address of the user.
28. The method of claim 25, wherein the alternate content cached on the system of a user is related to the content currently being viewed by the user.
29. A system comprising:

a content reception, distribution, and switching portion connected with one or more content providers to receive and redistribute interactive television (TV) content;

a head-end transport portion connected with the content reception, distribution, and switching portion to and encode, multiplex and transmitted content signals from the content reception, distribution, and switching portion over a network;

a hot key generation portion to determine whether to inform one or more users of an interactive television service of available content from an Internet web site, responsive to determining to inform the one or more users of the available content from an Internet web site, generate a hot key signal indicating availability and a location of the alternate content.

30. The system of claim 29, wherein the head-end transport portion receives the hot key signal from the hot key generation portion, and multiplexes the hot key signal with the content signal.
31. The system of claim 29, wherein the hot key generation portion determines whether to inform one or more users of an interactive TV service of available content from an Internet web site based on information supplied by a content provider.

32. The system of claim 29, wherein the hot key generation portion determines whether to inform one or more users of an interactive TV service of available content from an Internet web site based on information generated by the interactive television service provider.
33. The system of claim 29, wherein the hot key signal comprises an Internet Protocol (IP) data packet, the IP data packet having a header portion and a body portion, the body portion having a data field indicating a Uniform Resource Locator (URL) where the alternate content is located.
34. The system of claim 29, wherein the available content from an Internet web site is related to content currently being viewed by the one or more users.
35. The system of claim 29, wherein the network comprises a cable network.
36. The system of claim 29, wherein the network comprises a satellite network.
37. The system of claim 29, wherein the network comprises a Fiber-To-The-Curb (FTTC) network.
38. The system of claim 29, wherein the network comprises a Fiber-To-The-Home (FTTH) network.

39. The system of claim 29, wherein the network comprises a Very high speed Digital Subscriber Line (VDSL) network.
40. A system comprising:
 - a content reception, distribution, and switching portion connected with one or more content providers to receive and redistribute interactive television (TV) content;
 - a head-end transport portion connected with the content reception, distribution, and switching portion to and encode, multiplex and transmitted content signals from the content reception, distribution, and switching portion over a network;
 - a hot key generation portion to determine whether to supply alternate content to one or more users of an interactive television service, the alternate content to be cached on a terminal device located at a premises of the one or more users, responsive to determining to supply alternate content to one or more users to an interactive television service, send the alternate content to the terminal device located at the premises of the one or more users, and generate a hot key signal indicating availability of the alternate content.
41. The system of claim 40, wherein the head-end transport portion receives the hot key signal from the hot key generation portion, multiplexes the hot key signal with the content signal.

42. The system of claim 40, wherein the hot key generation portion determines whether to supply alternate content to one or more users of an interactive television service based on information supplied by a content provider.
43. The system of claim 40, wherein the hot key generation portion determines whether to supply alternate content to one or more users of an interactive television service based on information generated by the interactive television service provider.
44. The system of claim 40, wherein the hot key signal comprises an Internet Protocol (IP) data packet, the IP data packet having a header portion and a body portion, the body portion having a data field indicating a Uniform Resource Locator (URL) where the alternate content is located.
45. The system of claim 40, wherein the alternate content is related to content currently being viewed by the one or more users.
46. The system of claim 40, wherein the network comprises a cable network.
47. The system of claim 40, wherein the network comprises a satellite network.
48. The system of claim 40, wherein the network comprises a Fiber-To-The-Curb (FTTC) network.

49. The system of claim 40, wherein the network comprises a Fiber-To-The-Home (FTTH) network.
50. The system of claim 40, wherein the network comprises a Very high speed Digital Subscriber Line (VDSL) network.
51. A system comprising:
 - a tuner, receiver, and demodulator portion and a demultiplexor portion to receive a hot key signal indicating availability and a location of alternate content from an Internet web site;
 - a processor to determine whether the hot key signal is relevant to a subscriber currently viewing content from an interactive television (TV) provider, responsive to determining the hot key signal is relevant to the subscriber, displaying on a screen via a graphics processor and an input/output portion connected with the processor an indication that the hot key signal has been received, and responsive to receiving an indication via the input output portion that the hot key is accepted, starting a web browser and rendering the alternate content from an Internet web site indicated by the hot key signal.
52. The system of claim 51, wherein the hot key signal comprises an Internet Protocol (IP) data packet, the IP data packet having a header portion and a body portion,

the body portion having a data field indicating a Uniform Resource Locator (URL) where the alternate content is located.

53. The system of claim 51, wherein the processor determines whether the hot key signal is relevant to the subscriber based on whether a destination address for the hot key signal is an address of the subscriber.
54. The system of claim 53, wherein the processor determines whether the hot key signal is relevant to the subscriber based on whether the alternate content from an Internet web site is related to content currently being viewed by the subscriber.
55. A system comprising:
 - a tuner, receiver, and demodulator portion and a demultiplexor portion to receive content signals from a network;
 - a data storage device to cache content; and
 - a processor to receive a hot key signal indicating availability of alternate content cached on the data storage device, determine whether the hot key signal is relevant to the subscriber, responsive to determining the hot key signal is relevant to the subscriber, display on a screen an indication that the hot key signal has been received, and responsive to receiving an indication that the hot key is accepted, retrieving and presenting the cached content to the subscriber.

56. The system of claim 55, wherein the hot key signal comprises an Internet Protocol (IP) data packet, the IP data packet having a header portion and a body portion, the body portion having a data field indicating the availability of cached content.
57. The system of claim 55, wherein the processor determines whether the hot key signal is relevant to the subscriber based on whether a destination address for the hot key signal is an address of the subscriber.
58. A machine readable medium having stored thereon a series of instructions, the instructions, when executed by a processor, cause the processor to:
determine whether to inform one or more subscribers of an interactive television service of available content from an Internet web site;
responsive to determining to inform the one or more subscribers of the available content from an Internet web site, generate a hot key signal indicating availability and a location of the alternate content; and
insert the hot key signal into a content signal transmitted to the one or more subscribers from an interactive television service provider via a network with which the one or more subscribers and the interactive television service provider are connected.
60. The machine readable medium of claim 1, wherein determining whether to inform one or more subscribers of an interactive television service of available content from an Internet web site is based on information supplied by a content provider.

61. The machine readable medium of claim 1, wherein determining whether to inform one or more subscribers of an interactive television service of available content from an Internet web site is based on information generated by the interactive television service provider.
62. The machine readable medium of claim 1, wherein the hot key signal comprises an Internet Protocol (IP) data packet, the IP data packet having a header portion and a body portion, the body portion having a data field indicating a Uniform Resource Locator (URL) where the alternate content is located.
63. The machine-readable medium of claim 1, wherein the available content from an Internet web site is related to content currently being viewed by the one or more subscribers.
64. The machine-readable medium of claim 1, wherein the network comprises a cable network.
65. The machine-readable medium of claim 1, wherein the network comprises a satellite network.
66. The machine-readable medium of claim 1, wherein the network comprises a Fiber-To-The-Curb (FTTC) network.

67. The machine-readable medium of claim 1, wherein the network comprises a Fiber-To-The-Home (FTTH) network.
68. The machine-readable medium of claim 1, wherein the network comprises a Very high speed Digital Subscriber Line (VDSL) network.
69. A machine readable medium having stored thereon a series of instructions, the instructions, when executed by a processor, cause the processor to:
determine whether to supply alternate content to one or more users of an interactive television service, the alternate content to be cached on a terminal device located at a premises of the one or more users;
responsive to determining to supply alternate content to one or more users to an interactive television service, send the alternate content to the terminal device located at the premises of the one or more users;
generate a hot key signal indicating availability of the alternate content; and
insert the hot key signal into a content signal transmitted to the one or more users from an interactive television service provider via a network with which the one or more users and the interactive television service provider are connected.

70. The machine readable medium of claim 11, wherein determining whether to supply alternate content to one or more users of an interactive television service is based on information supplied by a content provider.
71. The machine readable medium of claim 11, wherein determining whether to supply alternate content to one or more users of an interactive television service is based on information generated by the interactive television service provider.
72. The machine readable medium of claim 11, wherein the hot key signal comprises an Internet Protocol (IP) data packet, the IP data packet having a header portion and a body portion, the body portion having a data field indicating a Uniform Resource Locator (URL) where the alternate content is located.
73. The machine-readable medium of claim 11, wherein the alternate content is related to content currently being viewed by the one or more users.
74. The machine-readable medium of claim 11, wherein the network comprises a cable network.
75. The machine-readable medium of claim 11, wherein the network comprises a satellite network.

76. The machine-readable medium of claim 11, wherein the network comprises a Fiber-To-The-Curb (FTTC) network.
77. The machine-readable medium of claim 11, wherein the network comprises a Fiber-To-The-Home (FTTH) network.
78. The machine-readable medium of claim 11, wherein the network comprises a Very high speed Digital Subscriber Line (VDSL) network.
79. A machine readable medium having stored thereon a series of instructions, the instructions, when executed by a processor, cause the processor to:
receive a hot key signal indicating availability and a location of alternate content from an Internet web site;
determine whether the hot key signal is relevant to a user currently viewing content from an interactive television (TV) provider;
responsive to determining the hot key signal is relevant to the user, display on a screen an indication that the hot key signal has been received; and
responsive to receiving an indication that the hot key is accepted, start a web browser and rendering the alternate content from an Internet web site indicated by the hot key signal.
80. The machine readable medium of claim 21, wherein the hot key signal comprises an Internet Protocol (IP) data packet, the IP data packet having a header portion

and a body portion, the body portion having a data field indicating a Uniform Resource Locator (URL) where the alternate content is located.

81. The machine-readable medium of claim 21, wherein determining whether the hot key signal is relevant to the user comprises determining whether a destination address for the hot key signal is an address of the user.
82. The machine readable medium of claim 23, wherein determining whether the hot key signal is relevant to the user further comprises determining whether the alternate content from an Internet web site is related to content currently being viewed by the user.
83. A machine readable medium having stored thereon a series of instructions, the instructions, when executed by a processor, cause the processor to:
cache alternate content on a terminal device of a user currently viewing content from an interactive television (TV) provider;
receive a hot key signal indicating availability of alternate content cached on the user's terminal device;
determine whether the hot key signal is relevant to the user;
responsive to determining the hot key signal is relevant to the user, display on a screen an indication that the hot key signal has been received; and
responsive to receiving an indication that the hot key is accepted, retrieve and present the cached content to the user.

- 84. The machine-readable medium of claim 25, wherein the hot key signal comprises an Internet Protocol (IP) data packet, the IP data packet having a header portion and a body portion, the body portion having a data field indicating the availability of cached content.
- 85. The machine-readable medium of claim 25, wherein determining whether the hot key signal is relevant to the user comprises determining whether a destination address for the hot key signal is an address of the user.
- 86. The machine readable medium of claim 25, wherein the alternate content cached on the system of a user is related to the content currently being viewed by the user.